35080

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E041/E135

AUTHOR: Frolov, B.V. (Candidate of Technical Sciences, Docent)

TITLE: Using Low-Power D.C. Reversing Motors in Automatic Control Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, No. 9, pp 73-79

TEXT: The usual arrangement for controlling a split-field d.c. motor requires a circuit like Fig. 1 where the separate halves are fed from a phase-sensitive amplifier. A more attractive arrangement would actually reverse the direction of current in a single winding. A suitable circuit is shown in Fig. 2. The input amplifier is unaltered and is not shown. The essential feature is the parallel connection of the opposed-polarity thyratrons. The relative phase between the inputs to the phase-sensitive rectifier determines which thyratron will rectify the a.c. supply to the motor field. An important advantage of the circuit is the possibility of reducing the heating of the motor. This is feasible on two counts: reduction due to better use of all the copper in the field winding; reduction of armature current due to forcing flux. A reduction by 40% of total losses is typical.

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Using Low-Power D.C. Reversing Motors in Automatic Control Systems

This figure is subject to revision (a smaller reduction) when saturation and armature reaction are taken into account. The curves in Fig. 3 determine the armature current giving nominal torque for various excitation currents or magnetomotive forces. Fig. 4 shows the reduction in armature current possible at any excitation. The results of some experimental work are given in Fig. 5 where commutator surface temperature is plotted against time. Curve 1 refers to the conventional circuit of Fig. 1; Curve 2 uses the circuit of Fig. 2 with the nominal flux; Curve 3 is similar but with forcing flux. The use of forcing flux increases the field dissipation slightly but this is more than compensated for by the reduction in armature heating. This modification of the operating conditions affects the transient response of the motor, whose equation of motion is

$$\frac{d^2\omega}{dt^2} + 2\delta \frac{d\omega}{dt} + \omega_0^2 \omega = 0, \qquad (4)$$

Using Low-Power D.C. Reversing Motors in Automatic Control Systems

where $\delta = \frac{C_3 C_M \Phi^2}{2I(r_{arm} + r_{suppl})}$, $\omega_0 = \sqrt{\frac{k_\alpha}{I}}$,

Φ - motor flux, r_{arm}, $r_{suppl.}$ - resistance of the armature and supplementary resistance connected in series with the armature, C_e, C_M - proportionality coefficients in the formulae for the e.m.f. and the torque of the motor, I - reduced moment of inertia of all the rotating parts, k_α - coefficient proportional to the angle of rotation. The means adopted are equivalent to an increase in the value of $r_{suppl.}$ and, consequently, the time-constant T. There are 6 figures and 4 Soviet references.

ASSOCIATION: Kafedra teoreticheskoy osnov elektrotekhniki, Leningradskiy institut aviatsionnogo priborostroyeniya (Chair of Theoretical Fundamentals of Electrotechnology, Leningrad Institute of Aviation Instruments)

SUBMITTED: March 20, 1960

FROLOV, B.V., kand.tekhn.nauk

Generalized characteristics of small d.c. motors with series excitation. Vest.elektroprom. 33 no.4:55-58 Ap '62. (MIRA 15:4)

(Electric motors, Direct current)

FROLOV, B.V.; DEM'YANOVA, G.V., tekhn. red.

[Manual on the calculation of a.c. networks using complex notation]Posobie po raschetu tsepei peremennogo toka simvolicheskim metodom. Leningrad, Leningr. in-t aviatsionnogo priborostroeniia, 1960. 31 p. (MIRA 16:2)
(Electric networks)

ZAVALISHIN, Dmitriy Aleksandrovich; BARDINSKIY, Sergey Ivanovich; PEVZNER, Osip Borisovich; FROLOV, Boris Vasil'yevich; KHRUSHCHEV, Vitaliy Vasil'yevich; USSER, A.S., red.; ZHITNIKOVA, O.S., tekhn. red.

[Electrical machines with low-power ratings] Elektricheskie mashiny maloi moshchnosti. [By] D.A.Zavalishin i dr. Moskva, Gosenergoizdat, 1963. 431 p. (MIRA 17:2)

FROLOV, Boris Vasil'yevich, kand. tekhn. nauk, dotsent

Determination of the e.m.f. induced in the armature winding of a universal motor by a transverse field. Izv. vys. ucheb. zav.; elektromekh. 6 no.10:1187-1198 '63. (MIRA 17:1)

1. Kafedra elektrotekhniki Leningradskogo mekhanicheskogo instituta.

FROLOV, B.; ALIMOV, A.

At the Chardzhou automotive transportation unit. Avt. transp. 42 no.10:31 O '64. (MIRA 17:11)

1. Direktor Chardzhouskogo avtoparka (for Frolov). 2. Glavnyy inzh. Chardzhouskogo avtoparka (for Alimov).

FROLOV, Boris Vasil'yevich, kand. tekhn. nauk, dotsent

Application of the magnetic dipole theory in the calculation of the magnetic fields of round current carrying stages. Izv. vys. ucheb. zav.; elektromekh. 8 no.10:1073-1083 '65. (MIRA 18:11)

1. Kafedra elektrotekhniki Leningradskogo mekhanicheskogo instituta. Submitted March 3, 1965.

SPEKTOR, A.M. (Sochi); NOVINSKIY, G.D. (Moskva); FROLOV, D.A. (Kuybyshev-obl.)

Concerning Professor A.M.Sigal's article "Notes on medical thought and on the problem of technic in the field of internal medicine." Kaz. med. zhur. no.6:90-94 N-D '60. (MIRA 13:12)
(MEDICINE, INTERNAL) (SIGAL, A.M.)

KREYNDLIN, A.N.; SAPRYKIN, V.A.; ZIL'BERMAN, R.I., inzh.; MELIK-PARSADANOVA, A.I., inzh.; MOLCHANOVA, O.I., inzh.; NIKONOV, M.A., inzh.; FROLOV, D.G., inzh.; TSYURUPA, A.L., inzh.; NOVITCHENKO, K.M., inzh., red.

[Album-catalog of designs of units, shops, and construction yards for making large brick blocks] Al'bom-katalog proektov ustanovok, tsekhov i poligonov po izgotovleniiu krupnykh kirpichnykh blokov. Moskva, Gosstroiizdat, 1960. 35 p. (MIRA 13:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Glavnyy inzh. Proyektno-konstruktorskoy kontory "Industroyproyekt" (for Kreyndlin). 3. Zamestitel' direktora po nauchnoy chasti Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu; deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Saprykin). (Building blocks)

RODKEVICH, G.V.; INYUSHIN, A.I.; FROLOV, D.M.

Automatic dioptrimeter and its investigation. Nov. med. tekh. no. 1:57-63 '60. (MIRA 14:2)

1. Gosudarstvennyy ordena Lenina Opticheskiy institut imeni S.I. Vavilova.

(DIOPTRIMETER)

KORF, Mayor Isaakovich; FAYBUSOVICH, Moisey Grigor'yevich; FROLOV, Dmitriy Pavlovich; YABLOKOV, V.I., red.; GALAKTIONOVA, Ye.N., tekhn. red.

[Tables for computing wages of motor-vehicle drivers] Raschetnye tablitsy dlia nachisleniia zarabotnoi platy shoferam. Moskva, Avtotransizdat, 1961. 265 p. (MIRA 15:4)

(Wages--Transportation, Automotive)

FROLOV, D.

Meat combines fo western provinces of Ukraine. Mias.ind.SSSR 28 no.1:32-33 '57. (MLRA 10:3)

1. Upravlyayushchiy L'vovskim mezhoblastnym myasotrestom.
(Ukraine--Meat industry)

FROLOV, D.

We are starting to build new meat enterprises. Mias. ind. SSSR 28 no.6:12 '57. (MIRA 11:1)

1. L'vovskiy sovnarkhoz.
(Lvov Economic Region--Meat industry)

FROLOV, D.

Conclusions deriving from experience. Mast.ugl. 9 no.3:7 Mr '60. (MIRA 13:6)

1. Glavnyy inzhener shakhty No.17-bis Karagandinskogo sovnarkhoza.
(Pechora Basin--Coal mining machinery)

FROLOV, D., dotsent

Our institute. Trudy VSTI no.1:3-6 '62.

(MIRA 17:11)

1. Rektor Vostochno-Sibirskogo tekhnologicheskogo instituta.

KORF, Mayor Isaakovich; FAYBUSOVICH, Moisey Grigor'yevich; FROLOV, Dmitriy Pavlovich; GRAKHOVSKAYA, T.M., red.

[Tables for the computation of wages for automobile, bus, and truck drivers] Tablitsy dlia rachisleniia zarabotnoi platy shoferam. Izd.2., dop. Moskva, Transport, 1964. 266 p. (MIRA 17:6)

[illegible] V. [illegible]

ROY, L. A., FROLOV, D. P. and POLYAKOVA, A. L.

"Sound Generation by Spark and Corona Discharges in Water."

paper presented at the 4th All-Union Conference on Acoustics, Moscow, 26 May - 2 Jun 58.

AUTHORS: Roy, N. A., Frolov, D. P. 20-118-4-16/61

TITLE: The Electroacoustic Efficiency of Spark Discharges in Water (Ob elektroakusticheskom KPD iskrovogo razryada v vode)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 683-686 (USSR)

ABSTRACT: The present paper attempts to determine data on the electroacoustic efficiency of a discharge subject to various conditions, which are determined by the length of the discharge gap, the amount of capacity discharged and the electric potential. The circuit diagram of this device is illustrated by a figure. This circuit permits a discharge at one gap (which is described here) and the simultaneous discharge at several gaps. The generation of the discharge is shortly discussed. A diagram represents the time characteristics of the amperage I(t) and of the potential V(t) during the discharge of a capacity of

$C = 0,1 \mu\Phi$

(at a potential V = 30 kV) across different spark gaps. These characteristics show the following: The generation of an auxiliary spark in the air-gap guarantees an increase of the potential across the spark gap to 30 kV during fractions of a microsecond. Afterwards the potential remains almost constant during a few microseconds and a weak current passes through the spark gap. The duration of this period varies from experiment to experiment and on the avarage decreases on a decrease of the spark gap. This period terminates with a potential jump, which fact speaks in favour of the breakdown of the spark gap. The shorter the spark gap, the lower the potential drop. After the jump point the potential slowly decreases, the current curve, however, forms a peak. The acoustic field of the spark was determined at a distance of R = 100 cm from the center of the spark gap. Some oscillographs are given here. The electro-acoustic impulse was here defined to be the ratio between (energy of the pulse with positive pressure / the energy stored in the condenser). A formula is written down for the total energy of the impulse. The efficiency of the trans-

 formation of a stipulated amount of electric energy into

acoustic energy decreases at a decrease of the spark gap, that is to say, independent of the fact, whether C and V remain constant or wether C is increased and V decreased. The efficiency decreases also, if the length of the spark gap remains constant, when the supply of electric energy is increased by an increase of C at constant V. The transition of energy from its electric to its acoustic form in a spark discharge in water is proceeding most efficiently (with an electroacoustic efficiency of up to 30 %) in discharges with long sparks.
There are 3 figures, 2 tables.

ASSOCIATION: Akusticheskiy institut Akademii nauk SSSR (Acoustics Institute AS USSR)

PRESENTED: August 28, 1957, by N. N. Andreyev, Member of the Academy

SUBMITTED: August 24, 1957

AVAILABLE: Library of Congress

FROLOV, D. P.

"Generation ofSound by Spark Discharges in Water,"

report presented at the 3rd International Congress on Acoustics, Stuttgart, GRF, 1-8 Sep 1959.

Acoustics Inst, Acad. Sci. USSR, Moscow.

Frolov, D. P.

FROLOV, D.S.

Results of the test operation of the K-52M cutter-loader. Ugol' 35 no.7:18-20 Jl '60. (MIRA 13:7)

1. Glavnyy inzhener shakhty No.17-bis tresta Leninugol' kombinata Karagandaugol'

(Coal mining machinery--Testing)

FROLOV, D. Sh., Cand of Tech Sci -- (diss) "Investigation of isothermic tempering of highly durable cast iron with sphere ore graphite." Moscow 1957, 16 pp (Moscow Higher Technical School im Bauman), 100 copies (KL, 32-57, 94)

Frolov, D Sh

137-58-3-5939

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 212 (USSR)

AUTHORS: Frolov, D. Sh., Kunyavskiy, M. N.

TITLE: The Effect of Isothermal Tempering on Mechanical Properties Spheroidized Cast Iron (Vliyaniye izotermicheskoy zakalki na mekhanicheskiye svoystva chuguna s sharovidnym grafitom)

PERIODICAL: Tekhnol. avtomobilestroyeniya, 1957, Nr 4, pp 44-51

ABSTRACT: Magnesium cast irons with spheroidal graphite (MCISG) which were investigated contained 3-4.7 percent Si; 3.12-3.40 percent C; 0.6-0.7 percent Mn; 0.012-0.014 percent S; 0.08-0.12 percent P; 0.05-0.10 percent Cr; 0.05-0.10 percent Ni; and 0.04-0.10 percent Mg. Practically identical structural state of the cast irons being investigated [in the form of lamellar and, in spots, sorbite-like pearlite with insignificant amounts of ferrite (5-7 percent approximately)] was achieved by means of normalization (heating to 920-930°C, maintaining the metal at this temperature for three hours and allowing it to cool in air). The kinetics of austenite decomposition and the process of isothermal tempering of MCISG were investigated on an anisometer; investigations were also carried out in order to

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The Effect of Isothermal Tempering (cont.)

determine how temperature, Si content, and the cross-sectional shape of a specimen or a production article affect the properties of isothermally tempered cast iron. An assumption is made, which is different from the usual assumption made in case of steel, namely, that the C concentration in austenite in MCISG is considered to be a variable function of the temperature primarily, also of the soaking period and the Si content which exerts a specific influence on the decomposition of the austenite. It is established that: 1) the kinetics of austenite decomposition is influenced by the homogeneity of the austenite as well as by the equilibrium of the austenite-graphite phases, conditions which may be achieved, for example in the case of 3.76 percent Si content, at an optimal heating temperature of 900° and a holding time of 30 minutes; 2) compared with standard tempering and annealing as well as with the normalized state, the isothermal tempering of MCISG increases its strength characteristics, σ_b by 50-80 percent and a_k by 200-300 percent, respectively; greatest values of σ_b and a_k in MCISG are obtained at an Si content of approximately 3.0-3.8 percent; 3) good mechanical properties are achieved here through the structural homogeneity of the acicular troostite without any traces of martensite constituent which is usually formed under exposures in excess of 20-30 minutes to temperatures between 300° and 350° which are required for the complete decomposition

The Effect of Isothermal Tempering (cont.)

of austenite and prevention of martensite transformation during subsequent cooling; 4) isothermal tempering may be employed for materials up to 30 mm in cross section. In connection with data obtained the authors stress the possibilities for broad industrial application of isothermal tempering of MCISG.

S. Sh.

AUTHORS: Frolov, D. Sh. and Mirza, A. N., Engineers. 129-9-2/14

TITLE: Microstructural study of the disintegration of supercooled austenite in magnesium (inoculated) spheroidal cast iron. (Mikrostrukturnoye izucheniye raspada pereokhlazhdennogo austenita v magniyevom chugune s sharovidnym grafitom).

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.9, pp.4-9 (U.S.S.R.)

ABSTRACT: In this paper the results are described of microstructural investigations of isothermal transformation of the austenite of magnesium inoculated cast iron of the following composition: 3.12% C, 0.55% Mn, 3.51% Si, 0.012% S, 0.10% P, 0.10% Cr, 0.10% Ni and 0.05% Mg. This cast iron was produced by innoculating liquid iron with an alloy consisting of 20 to 25% Mg and 75 to 80% FeSi and subsequent normalisation for eliminating free cementite formed during the cooling process. The initial structure of the investigated cast iron after normalisation annealing consisted of lamellar pearlite and in some places of sorbitic pearlite with small quantities of ferrite (10 to 15%) distributed around spherical separations of the graphite. The isothermal decomposition was studied in the temperature range 200-700 C

Card 1/4

Microstructural study of the disintegration of super-cooled austenite in magnesium (inoculated) spheroidal cast iron. (Cont.) 129-9-2/14

at intervals of 50 C and for isothermal annealing lasting 2,5,30 and 60 minutes and in some cases 6 to 9 hours. The investigated specimens consisted of 15 mm dia., 5 mm high discs heated to 900 C, held for thirty minutes at that temperature and then rapidly transferred into a saltpetre bath with given constant temperatures. Following that, the specimens were quenched in water for fixing the austenite disintegration. The graph, Fig.1, gives the measured change in the hardness as a function of the annealing time at various temperatures in isothermal media. Fig.2 shows five microstructure photographs of isothermal transformation products of magnesium—inoculated cast iron at a magnification of 400 times, whilst Fig.3 shows two microstructure photographs at 10 000 times magnification. Fig.4 gives the diagram of isothermal austenite transformation in magnesium inoculated spheroidal iron. During isothermal decomposition of super-cooled austenite, three transformation zones are observed, in the same way as in steel, namely, the pearlitic one (at 600 C and above up to the critical point of the beginning of eutectoidal transformation), the intermediate

Card 2/4

Microstructural study of the disintegration of super-cooled austenite in magnesium (inoculated) spheroidal cast iron. (Cont.) 129-9-2/14

one (between 250 and 550 C) and the martensitic one (below 250 C). In the zone of pearlitic transformation the austenite decomposition begins with the formation of a pearlitic structure and, following that, coagulation takes place and graphization of the cementite until pure ferrite is formed. The intensity of these processes increases with increasing temperature and holding times. Disintegration of the austenite in the zone of intermediate transformation begins with the formation of acicules, the location, shape and size of which depend on the degree of super-cooling. At high degrees of super-cooling (250-350 C) thin acicules form, at the beginning only around graphite inclusions and later on preferentially along the grain boundaries. In the case of small degrees of super-cooling (400-550 C) thicker acicules form, with rounded off ends, independently of graphite inclusions. The character of formation of the structure of acicular troostite and the formation of considerable quantities of stable austenite in the process of isothermal annealing indicate that the process of disintegration of super-cooled austenite in the zone of intermediate trans-

Card 3/4

Microstructural study of the disintegration of super-cooled austenite in magnesium (inoculated) spheroidal cast iron. (Cont.)

129-9-2/14

-formation is linked with diffusion redistribution of the carbon and the austenite. Acicular separations can be considered as the α-phase with a lower carbon concentration than that of the original austenite.
There are 4 figures and 3 Slavic references.

ASSOCIATION: Moscow Institute of Mechanisation and Electrification of Agriculture. (Moskovskiy Institut Mekhanizatsii i Elektrifikatsii Sel'skogo Khozyaystva).

AVAILABLE:

Card 4/4

FROLOV, D.Sh., kand.tekhn.nauk

Changes in the linear dimensions of magnesium cast iron during annealing and normalization. Metalloved. i term. obr. met. no. 5:45-48 My '60. (MIRA 13:12)

1. Buryatskiy zooveterinarnyy institut.
(Cast iron--Heat treatment) (Dilatometry)

BELYAVSKIY, Mikhail L'vovich; KISELEV, Nikolay Aleksandrovich; FROLOV, E.S., redaktor; VOLKOVA, Ye., tekhnicheskiy redaktor

[Manual for a stoker on a sea-going vessel] Uchebnoe posobie dlia kochegara morskogo sudna. Izd. 2-e, dop. i ispr. Moskva, Izd-vo "Morskoi transport," 1955. 363 p. (MLRA 9:2)
(Steam boilers, Marine)

FROLOV, F., DEMIDOV, O., aspirant

New equipment at the Tushino sewage treatment plant. Zhil.-kom.khoz. 9 no.1:12-13 '59. (MIRA 12:3)

1. Direktor Tushinskoy stantsii aeratsii (for Frolov). 2. Akademiya kommunal'nogo khozyaystva.
(Tushino--Sewage--Purification)

FROLOV, F., inzh.-kapitan

Invisible becomes visible. Kryl.rod. 13 no.1:30-31 Ja '62.
(MIRA 15:2)
(Infrared rays—Industrial applications)

FROLOV, F. A., Cand Tech Sci —(diss) "Investigation of Heat Transfer of Cooling Elements and the Development of the Construction of Air Coolers for Booster Motors (with Force Feed)," Leningrad, 1960, 19 pp, 200 copies (Leningrad Shipbuilding Institute) (KL, 48/60, 114)

FROLOV, F.A.

Changing the design of the guide funnel. Sbor. rats. predl. vnedr. v proizv. no.2:21-22 '61. (MIRA 14:7)

1. Metallurgicheskiy zavod imeni Dzerzhinskogo.
(Wire drawing—Equipment and supplies)

POSTNIKOV, I.S.; BELYAYEVA, M.A.; FROLOV, F.A.; IVANOVA, O.D.

Study of methods for improving the active sludge regeneration process in air tanks. Nauch. trudy AKKH no.20:12-22 '63.
(MIRA 18:12)

FROLOV, F.F.

Frolov, F.F. "Treatment of sulfur-resisting gonorrhea in men by penicillin in ambulatory cases," Nauch. zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-venerich. Kolomnsk. GPMI im. Kirova, Issue 12, 1 46, p. 269-73

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

FROLOV, F.F.

Frolov, F.F. "Combined treatment of gonorrhea with penicillin and sulfathi zole in ambulatory cases," Nauch. zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-venerich. bolezney GGMI im. Kirova, Issue 12, 1948, p. 214-76

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

FROLOV, F.F.

FROLOV, F. F.

Penicillin in autoblood in treatment of gonorrhea. Vest. vener. No. 4, July-Aug. 50. p. 48-50

1. Author a Colonel in the Medical Corps and a Candidate of Medical Sciences.

CLML 19, 5, Nov., 1950

FROLOV, F.F., kandidat meditsinskikh nauk; TARBEYEVA, N.A., zubnoy vrach.

Experience in preventing dental caries. Stomatologiia no.4:61 Jl-Ag '55. (MLRA 8:10)

(TEETH--CARE AND HYGIENE)
(FLUORINE--THERAPEUTIC USE)

FROLOV, F.F., polkovnik med. sluzhby, kand.med.nauk

Ultraviolet irradiation in preventing colds and purulent diseases of the skin. Voen.med.zhur. no.12:82 D'55 (MIRA 12:1)
(SKIN--DISEASES)
(ULTRAVIOLET RAYS--THERAPEUTIC USE)
(COLD(DISEASE)

FROLOV, F.F., polkovnik med. sluzhby, kand.med. nauk.

Using Novikov's antiseptic solution. Voen.-med. zhur. no.11:80-81 N '56.
(ANTISEPTICS) (MIRA 12:1)

FROLOV, F.F., polkovnik meditsinskoy sluzhby, kandidat meditsinskikh nauk

Prevention and treatment of epidermophytosis. Voen.med.zhur. no.12:74 D '56. (MLRA 10:3)

(DERMATOMYCOSIS)

FROLOV, F.F., kandidat meditsinskikh nauk (Gor'kiy)

Positive results from treatments by Novikov's antiseptic liquid. Vest.ven. i derm. 30 no.4:52 Jl-Ag '56. (MLRA 9:10)
(ANTISEPTICS)

17(

SOV/177-58-9-42/51

AUTHORS: Mizinov, N.N., Frolov, F.F., Golodukho, I.G., Colonels of the Medical Corps, Candidates of Medical Sciences, Yerukhimov, M.L., Colonel of the Medical Corps, Shakurov, M.F., Lieutenant-Colonel of the Medical Corps

TITLE: Working Experience in Searching for Wounded Soldiers and Rendering First Aid to Them at Night

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 9, p 37 (USSR)

ABSTRACT: The authors give a short report on exercises in searching for wounded soldiers at night on broken terrain. As compared with similar exercises in daytime, the amount of time necessary to locate a wounded soldier increased by 40%, while 20% of the wounded were not found. This percentage of the missed wounded soldiers is over 3 times above the pertinent percentage in daytime. It is suggested that the search parties be numerically increased and equipped with flash-lights. Also, soldiers

Card 1/2

Working Experience
First Aid to Th

Card 2/2

KOCHURA, O.D., kand. med. nauk; FROLOV, F.F., kand. med. nauk

Experience in health education. Vest. derm. i ven. 37 no.12: 55-57 D '63 (MIRA 18:1)

1. Gor'kovskiy kozhno-venerologicheskiy institut (direktor O.D. Kochura).

FROLOV, F. N.

"For Further Development of Collective Farm Apiculture," Pchelovodstvo, 29, No.7, 1952

FROLOV, F.N.

The Arbat-Kuntsevo line of the Moscow subway. Gor.khoz.Mosk. 32 no.12:22-26 D '58. (MIRA 11:12)

1. Zamestitel' nachal'nika Moskovskogo metropolitena imeni V.I. Lenina.
(Moscow--Subways)

FROLOV, F.P., inzh.

Nail-drawing tool. Mashinostroitel' no.4:38 Ap '60. (MIRA 13:6)

(Tools)

FROLOV, F.P.

Mechanization and automation of chain-driven drawing machines. (MIRA 14:5)
Mashinostroitel' no.5:14 My '60.
(Drawing (Metalwork)—Equipment and supplies)
(Automation)

FROLOV, F.P.

Checking the curvature of screw gauges. Izm.tekh. no.7: 24-25 Jl '60. (MIRA 13:7)
(Gauges—Testing)

FROLOV, Feliks Yakovlevich, inzh.; IZRAILEVICH, Yevgeniya Abramovna, kand. khim.nauk; SHTEYNBOK, G.Yu., inzh., vedushchiy red.; SEMIBRATOV, M.N., kand.tekhn.nauk, red.

[Lighting equipment for obtaining Raman spectra. Preparing a vessel for measuring infrared spectra absorbed by solutions under pressure] Osvetitel'naia ustanovka dlia polucheniia spektrov kombinatsionnogo rasseianiia sveta. Izgotovlenie kiuvet dlia izmereniia infrakrasnykh spektrov pogloshcheniia rastvorov pod davleniem. Moskva, 1956. 14 p. (Pribory i stendy. Tema 7, no.P-56-485) (MIRA 11:3)

1. Moscow. Institut tekhniko-ekonomicheskoy informatsii.
(Spectrum, Infrared) (Raman effect)

SHAGUN, Mariya [Shahun, M.], slesar'-sborshchik; SADOVSKAYA, V. [Sadouskaia, V.], komsorg.; VOYTEKHOVSKIY, M.M.; [Voitsakhouski, M.M.], uchitel' (derevnya V. Staeblevichi, Zhitkovitskogo rayona); BIL'DZYUKEVICH, E.; KRYVOSHEYENKO, Petr [Kryvasheenka, P.], elektromonter; SHAREYEV, Anatol' [Sharaieu, A.] (derevnya Tudorovo, Shklovskogo rayona); ABRAMENKO, Valentina [Abramenka, V.], uchitel'; FROLOV, Grigoriy [Fralou, Ryhor] (g.Krichev)

Let's talk about happiness. Rab.i sial. 36 no.10:18-19 O '60. (MIRA 13:10)

1. Zavod bytovykh priborov, Grodno (for Shagun). 2. Fabrika "KIM," g. Vitebsk (for Sadovskaya). 3. Vasilevichskaya dorozhnaya remontno-ekspluatatsionnaya stantsiya (for Krivosheyeno). 4. Borovichskaya srednyaya shkola Porechnenskogo rayona, Gomel'skoy oblasti (for Abramenko).

(Women--Employment)

FROLOV, G.; ZINOVKIN, G.

Methodology of creating and using uniform norms for loading and unloading work. Sots. trud 5 no.11:102-106 N '60. (MIRA 14:1)
(Loading and unloading—Production standards)

KOMAROV, A., doktor tekhn. nauk; FROLOV, G., inzh.; BAKHVALOVA, L., ekonomist; SOYUZOV, A., doktor tekhn. nauk; KOVALEV, A., inzh.; KOLESNIKOV, V., kand. tekhn. nauk

The system of general transportation indicators. Rech. transp. 24 no.7:3-7 '65. (MIRA 18:8)

1. Institut kompleksnykh transportnykh problem pri Gosekonomsovete SSSR (for Bakhvalova). 2. Odesskiy institut inzhenerov morskogo flota (for Soyuzov). 3. TSentral'nyy nauchno-issledovatel'skiy institut ekonomiki i ekspluatatsii vodnogo transporta (for Kovalev). 4. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta (for Kolesnikov).

KANARSKIY, I.A.; FROLOV, G.A.

Changing the design of the valve lubricator.
Sbor.rats.predl.vnedr.v proizv. no.1:54-55 '61. (MIRA 14:7)

1. Chelyabinskiy truboprokatnyy zavod.
(Lubrication and lubricators)

BLIZNYUKOV, Yu.N.; FROLOV, G.A.

Side tracking when drilling deep wells. Burenie no.10:13-17 '64.
(MIRA 18:6)

1. Trest "Groznefterazvedka" i neftepromyslovoye upravleniye "Sunzhanneft'".

FROLOV, G.D.; TROITSKIY, I.D.; LAMAN, N.K., nauchnyy sotrudnik; SADAKOV, A.I.; KALININ, N.I.

One hundred and seventy-fifth anniversary of the "Elektroprovod" electric cable plant in Moscow. Vest. elektroprom. 31 no.12:18-23 D '60. (MIRA 14:2)

1. Direktor Moskovskogo kabel'nogo zavoda "Elektroprovod" (for Frolov). 2. Glavnyy inzh. Moskovskogo kabel'nogo zavoda "Elektroprovod" (for Troitskiy). 3. Institut istorii yestestvoznaniya i tekhniki AN SSSR (for Laman). 4. Sekretar' partiynoy organizatsii Moskovskogo kabel'nogo zavoda "Elektroprovod" (for Sadakov). 5. Predsedatel' zavkoma Moskovskogo kabel'nogo zavoda "Elektroprovod" (for Kalinin).
(Moscow--Electric cables)

PHASE I BOOK EXPLOITATION SOV/6529

Krinitskiy, N. A., G. A. Mironov, and G. D. Frolov

Programmirovaniye (Programming). Moscow, Fizmatgiz, 1963. 383 p. (Series: Spravochnaya matematicheskaya biblioteka) Errata slip inserted. 40,000 copies printed.

Ed. (Title page): M. R. Shura-Bura; Eds. of the series: L. A. Lyusternik and A. R. Yanpol'skiy; Ed.: Yu. M. Bezborodov; Tech. Ed.: N. Ya. Murashova.

PURPOSE: This handbook is intended for students in schools of higher education and universities, and for engineers and scientific workers who either use or service electronic computers.

COVERAGE: The book deals with problems of programming. Theoretical elements of program-controlled computers are briefly discussed and classified, and the basic operations of computers are described. Special computer characteristics, the sequence of problem solving, and operational programming methods are given. The application of

Card 1/2

certain conventional methods to programming is described. The method of standard subroutines is presented in its two variants (compilation and interpretation systems). Basic information is given on the automation of programming by means of an operator-programmer. In addition, the book includes short descriptions of the principal Soviet electronic digital computers (the Ural-1, Ural-2, "Setun'," M-2, M-3, BESM-2, and "Strela"). The first part of the book (chapters 1—7) was written by N. A. Krinitskiy, and the second part (chapters 8—14), by G. A. Mironov and G. D. Frolov. The authors thank L. A. Lyusternik, A. A. Lyapunov, M. R. Shura-Bura and A. R. Yanpol'skiy for their assistance. There are 60 references, all Soviet.

TABLE OF CONTENTS:

BELONOGOV, G.G. (Moskva); FEDOROV, G.D. (Moskva)

Empirical data on the distribution of letters in Russian words. Probl. kib. no.9:287-306 '63. (MIRA 17:10)

BUKHTIYAROV, Aleksey Mikhaylovich; ZIKEVSKAYA, Lidiya Mikhaylovna; EROLOV, Gennadiy Dmitriyevich; KRINITSKIY, N.A., red.; GORYACHAYA, M.M., red.

[Collection of problems in programming with answers and solutions] Sbornik zadach po programmirovaniiu s otvetami i resheniiami. Moskva, Nauka, 1965. 410 p. (MIRA 18:11)

FROLOV, T. F.

Electric Transformers

Simplification of layout in the assembly of 3 kv. cells for internal use, Mab. energ. 3, No. 1, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, May 1953. Unclassified.

FROLOV, G. F.

Use of penicillin container for eye drops and solutions. Med. sestra, Moskva no.9:27 Sept. 1950. (CLML 2-:1)

1. Of the Eye Division, Mukachevo Hospital, Zakarpatskaya Oblast (Acting Head Physician - Ye. A. Sklyarovskiy).

FROLOV, G. F.

Penicillin therapy of acute conjuncti-itis in polyclinics. Fel'dsher & akush., Moskva no. 7:13-14 July 1952. (CLML 22:5)

FROLOV, G.F.

Comparative data on streptomycin and PAS therapy of scrofulous diseases of the eye. Vest. oft., Moskva 32 no.4:9-14 July-Aug 1953. (CLML 25:1)

1. Of the Eye Division of Mukachevo Municipal Hospital.

FROLOV, G.F. (Mukachevo)

Foreign bodies in the cornea and in the connective tissue of the eye. Fel'd. i akush. no.1:26-30 Ja '55. (MLRA 8:3)
(FOREIGN BODIES, cornea & eyelids)
(CORNEA, foreign bodies)
(EYELIDS, foreign bodies)

FROLOV, G.F.

Improvement in methods for investigating distant visual acuity.
Voen.med.zhur. no.12:42-48 D'57 (MIRA 11:5)
(VISION,
acuity, distant, investigation (Rus))

FROLOV, G.F.

Determining visual acuity in preschool children. Oft.zhur. 12 no.2: 82-86 '57. (MIRA 10:11)

1. Iz glaznogo otdeleniya Mukachevskoy bol'nitsy.
(VISION--TESTING)

FROLOV, G. F. Cand Med Sci -- (diss) "On the study of the acuity of vision in preschool children." Mukachevo, 1959, 16 pp, (L'vov State Med Inst), 220 copies, (KL, 32-60, 147)

ACC NR: AP6029133 SOURCE CODE: UR/0048/66/030/006/1065/1067

AUTHOR: Salamakiy, N.M.; Chistyakov, N.S.; Frolov, G.I.

ORG: Institute of Physics, Siberian Section, Academy of Sciences, SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Concerning investigation of the nature of the weakfield pulse switching process in thin ferromagnetic films [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1065-1067

TOPIC TAGS: ferromagnetic film, magnetization, magnetic susceptibility, microwave, Permalloy

ABSTRACT: It is suggested that the changes in the uhf susceptibility of thin ferromagnetic films during pulsed switching be employed, in addition to the signals picked up by the usual longitudinal and transverse windings, in investigations of the switching mechanism. It is shown with the aid of the expressions of N.S.Chistyakov and V.A. Ignatchenko (Izv. AN SSSR, Ser. fiz., 30, No. 1, 59 (1966)) for the uhf susceptibility at frequencies far from the ferromagnetic resonance, that the uhf susceptibility does not change during switching by domain wall displacement but does change during switching by magnetization rotation, even when the rotation is symmetrically bilateral (half the magnetization rotating clockwise and half, counterclockwise). The use of both

L 00760-67

ACC NR: AP6029135

pick-up coils and the uhf susceptibility, therefore, makes it possible to distinguish between the magnetization change due to domain wall displacement and that due to rotation. Curves of the uhf susceptibility of a 1500 Å Permalloy film recorded during switching with a 10 Oe pulse are presented as an illustration of the feasibility of the proposed technique. To record these curves the film was mounted near the end wall of a resonant cavity which was in a side arm of a T bridge and was excited at 9 kMHz in the H_{102} mode. Orig. art. has: 1 formula and 3 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 002

Card 2/2 bc

FROLOV, G.I., mayor meditsinskoy sluzhby

Tissue therapy in otorhinolaryngological diseases. Voen.-med. zhur. no.9:81-84 S '51. (MLRA 9:9)
(TISSUE EXTRACTS) (EAR--DISEASES)

POMINOV, I.S.; VAISOV, N.N.; FROLOV, G.I.

Cryostat to the SF-4 spectrophotometer for investigating liquids at low temperature. Zav. lab. 30 no.5:634 '64.
(MIRA 17:5)

1. Kazanskiy gosudarstvennyy universitet.

L 15376-66 EWT(1)/EWP(e)/EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/GG

ACC NR: AP3004454 SOURCE CODE: UR/0048/66/030/001/0002/0005

AUTHOR: Salanskiy, N.M. Frolov, G.I. 48

ORG: Physics Institute of the Siberian Section of the DDDT Academy of Sciences (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR) B

TITLE: Concerning nucleation incident to pulsed switching of thin films /Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films, held at Irkutsk 10 July to 15 July, 1964/ 16,44,55

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 1, 1966, 2-5

TOPIC TAGS: ferromagnetic film, magnetic thin film, magnetic domain structure, magnetization, pulsed magnetic field,

ABSTRACT: The authors have investigated nucleation and domain structure changes incident to pulsed magnetization switching of two ferromagnetic films of undisclosed composition. The films were deposited at 10^{-5} mm Hg onto an undisclosed substrate. One film was 1200 Å thick and had a coercive force of 1.30 Oe, an anisotropy field of 2.8 Oe, and an angular dispersion of anisotropy of 0.4-0.5 Oe; the corresponding quantities for the other film were 1550 Å, 137 Oe, 3.1 Oe, and 0.15-0.2 Oe. The domain structure was observed by means of the Kerr effect after the film had been magnetized in a longitudinal field of intensity from 2 to 4 Oe and duration from 50 to 500 nanosec. When the field strength was 3 Oe a rapid increase of the number of nuclei with increasing duration of the pulse was observed. When the pulse was longer than 100 nanosec

Card 1/2

L 15370-66
ACC NR: AP6004454

the nuclei were seen to grow and merge while new nuclei continued to form. The magnetization process was not completed even when the pulse duration was 500 nanosec. When the magnetizing field strength was 4 Oe the switching process was completed when the pulse duration was 300 nanosec. The time required to form nuclei decreased very rapidly with increase of the field strength. The nucleation time was two or three orders of magnitude longer than the coherent rotation time for the film as a whole. There is a brief theoretical discussion from which it is concluded that the number of nuclei will increase with increasing magnetizing field strength until coalescence of the reverse domains owing to increase in their number and size, begins to predominate over nucleation. Experiments with a 3 Oe switching pulse in the presence of a 0.1 transverse field showed that the transverse field favored the switching process. This can be explained with the aid of the nonuniform rotation model, and it may also be connected with the appearance of a large number of nuclei under conditions favorable to their growth. Orig. art. has: 4 formulas, 3 figures and 1 table.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 001

Card 2/2

ACC NR: AP7000655 (A) SOURCE CODE: UR/0126/66/022/005/0698/0701

AUTHORS: Salanskiy, N. M.; Logutko, A. L.; Frolov, G. I.; Abakumov, B. M.

ORG: Institute of Physics, SO AN SSSR (Institut fiziki SO AN SSSR)

TITLE: Static and impulse magnetization and reversal of magnetization of thin films

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 5, 1966, 698-701

TOPIC TAGS: magnetic hysteresis, hysteresis loop, ferromagnetic film, magnetic domain structure

ABSTRACT: The "virgin" magnetization curve and hysteresis loops of thin films containing 82% Ni and 18% Fe were determined in static and pulsating magnetic fields. The effect of partial reversal of the magnetic field on the domain structure of the specimens was studied. The experimental procedure is described by T. S. Hoffman, I. A. Turner, and T. I. Kilburn (J. of British Institute of Radio Engineers, 1960, 20, 1, 31). The experimental results are presented graphically (see Fig. 1). Photographs of the domain structure of specimens exposed to different magnetization conditions are presented. The time dependence of domain nucleation on the magnitude of the variable magnetic field was also studied. The results are shown graphically. It was found that the change in the domain structure of specimen, as a result of the application of a variable magnetic field, was analogous to that found under similar conditions by N. M. Salanskiy and G. I. Frolov (FMM, 1966, 21, 157).

Card 1/2 UDC: 539.216.2:538.24

ACC NR: AP7000655

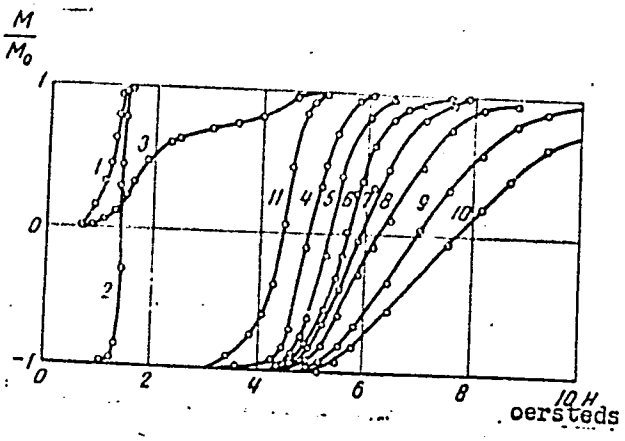

Fig. 1. Static (1) and impulse (3) "virgin" magnetization curves, static (2) and impulse (4—10) magnetic reversal curves and dispersion curve H_k in terms of magnitude (11) for thin ferromagnetic film (H_k = 4.4 oersteds, H_c = 1.3 oersteds, angular dispersion α_{90} = 0.06 oersted, d - 1100 Å). Duration of impulses t_{imp}: 4 - 500, 5 - 300, 6 - 200, 7 - 150, 8 - 100, 9 - 70, 10 - 50 nanoseconds

Orig. art. has: 5 graphs.

SUB CODE: 20, 11/ SUBM DATE: 28Jun65/ ORIG REF: 002/ OTH REF: 001

Card 2/2

MOLCHANOV, A.P.; FROLOV, G.L.

Narrow-band amplifiers with vibration galvanometers. Prib. i tekh. eksp. no.1:89-90 Jl-Ag '56. (MLRA 10:2)

(Amplifiers, Electron-tube)

40949

S/109/62/007/007/017/018
D256/D308

AUTHOR: Frolov, G. L.

TITLE: Interference-stable vibrational instrument for contact* PD measurements

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 7, 1962, 1230-1234

TEXT: A description is given of a vibrating reed instrument arranged in such a way that the frequency of the measured voltage does not coincide with that driving the vibrator, so that the measured signal can be filtered effectively from the noise, and in particular from the interference induced by the vibrator. The capacitor comprises a standard electrode attached to the vibrating reed and an insulator support for mounting the plate under investigation. 35 c/s a.c. is used to power the electromagnet, and the alternating potential resulting from the contact PD between the investigated surface and the vibrating electrode is of double frequency, i.e. 70 c/s. The construction of the arrangement is presented and

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* PD : Potential-difference

a circuit diagram of the electrometric stage is included. The electrometric stage is followed by a narrow passband selective amplifier, a phase detector and an R-C filter. The contact PD is measured at the output by means of a potentiometer compensator. The sensitivity of the instrument approaches 5 x 10^{-5} V using a 5 to 6 mm diameter vibrating plate and 10^{8} ohm input impedance. There are 5 figures.

SUBMITTED: August 14, 1961

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000513810002-1"

FROLOV, G.I.

Noise-proof vibration-type device for measuring the difference of contact potentials. Radiotekh. i elektron 7 no.7:1230-1234 '62. (MIRA 15:6)

(Electric measurements)

FROLOV, Gennadiy Matveyevich; SUMARKOV, V.P., red.; FILIMONOVA, A.I., red.izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Acetic acid, its production and rectification] Uksusnaia kislota, ee proizvodstvo i rektifikatsiia. Izd.2., perer. Moskva, Goslesbumizdat, 1963. 209 p. (MIRA 17:3)

MITYUNIN, N.K., starshiy nauchnyy sotrudnik (Leningrad K-17, prospekt Engel'sa, d.53, kv.15); D'YACHENKO, P.K., kand. med. nauk; FROLOV, G.M., mladshiy nauchnyy sotrudnik

Preservation of the extremity after crushing of the hip. Ortop., travm. i protez. 26 no.3:46-48 Mr '65. (MIRA 18:7)

1. Iz travmatologicheskoy kliniki (rukovoditel' - N.K.Mityunin) Leningradskogo instituta skoroy pomoshchi imeni Dzhanelidze (dir. - prof. G.D.Shushkov).

FROLOV, G.N., kand.tekhn.nauk

Efficient conditions for the stabilization of flexible diaphragm elements. Av.prom. 26 no.8:57-60 Ag '57. (MIRA 15:4)
(Diaphragms (Mechanical devices))

FROLOV, G.N.

Functional correlation of errors in spring manufacture. Vzaim. i tekh. izm. v mashinostr.; nauch.-tekh. sbor. no.4:263-280 '64 (MIRA 18:1)

FROLOV, G.N., kand. tekhn. nauk

Interchangeability and technology of the manufacture of flexible elements of instruments. Standartizatsiia 28 no.9:37-43 S '64. (MIRA 18:2)

L 44349-66 EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6012611 SOURCE CODE: UR/0182/66/000/004/0021/0023

AUTHOR: Frolov, G. N.; Filatov, A. I., Kofolev, V. N. 40 B

ORG: none

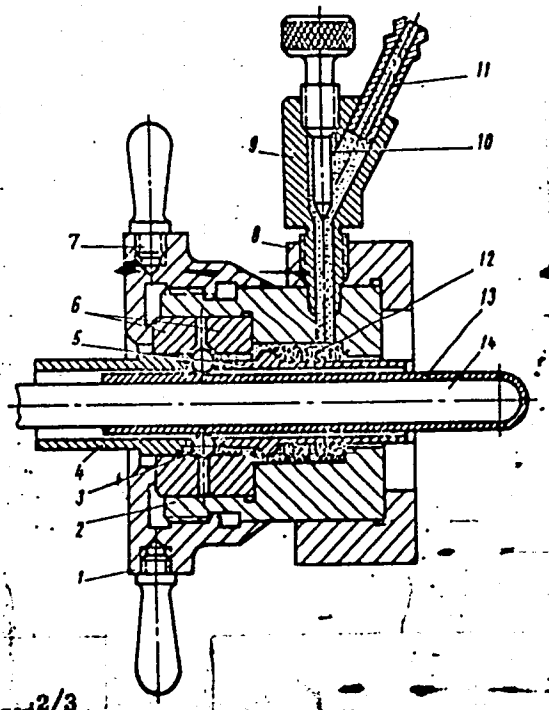
TITLE: Ball reeling of thin-walled small-diameter tubular products of Kh18N9T Cr-Ni steel

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1966, 21-23

TOPIC TAGS: beta radiation counter, chromium steel, metal machining, metal rolling / Kh18N9T Cr-Ni steel, SBM-9 beta-radiation counter, SBM-10 beta-radiation counter, SBM-11 beta-radiation counter, SBM-12 beta-radiation counter

ABSTRACT: The development of various instruments has raised the problem of fabricating special tubular products of a small diameter (2-6 mm) with walls as thin as 50-40 μ. These products must meet various special requirements such as: 1) satisfactory airtightness assuring the preservation of a vaccum of the order of $1 \cdot 10^{-5}$ mm Hg within the cavity for several years; 2) adequate purity of inside and outside surfaces, such as to dispense with the need for additional machining; 3) high elastic and strength properties of the walls, achieved by means of a high degree of work hardening (as much as 75%) during fabrication; 4) (in some cases)

Card 1/3 UDC: 621.98.986



comparatively large length (150-200 mm) for a diameter of 2 mm and a wall thickness smoothly varying from 0.05 to 0.1 mm. Such requirements cannot be met by the know techniques of deep drawing and roll reeling. Hence, the authors describe a technique specially developed for this purpose and based on the ball reeling of blanks of Kh18N9T Cr-Ni steel with the aid of a lathe-mounted adjustable ball head (Fig. 1)

Fig. 1. Adjustable ball head for ball reeling

1 - micrometric nut; 2 - housing; 3 - balls; 4, 5 - retainer bushings; 6 - supporting cones; 7 - grip; 8 - holder; 9 - connecting pipe; 10 - needle; 11 - nipple (for lubricant); 12 - spring; 13 - reeled tubular product; 14 - mandrel

L 44349-66

ACC NR: AP6012611 O

consisting of housing 2 with working balls 3 located in between supporting cones 6. As the cones recede from or approach each other owing to the rotation of micrometric nut 1, the balls either recede from or approach the center so that the inside diameter in between the balls, and hence also the diameter of the reeled tube, is varied. Blank (tube) 13, tightly slipped over smooth mandrel 14, serves as the inner ball race, so to speak. Working balls 3 revolve around the annular gap between the blank and cones 6 (which serve as the outer ball race, so to speak), thus exerting pressure on the wall of the blank as it revolves together with the mandrel. The products thus fabricated satisfy the requirements specified above. The decisive condition is the use of balls of a sufficiently small diameter (not more than 2 mm). Owing to the compaction of the material during reeling, the finished products display a satisfactory airtightness. At present the ball reeling of tubular products is regularly employed in the serial production of four types of beta-radiation counters: SBM-9, SBM-10, SBM-11, and SBM-12. Orig. art. has: 4 figures.

SUB CODE: 11, 13, 20/ 18 SUBM DATE: none/

Card 3/3 blg

ACC NR: AM6029202 Monograph UR/

Frolov, Georgiy Nikolayevich

Precision in the manufacture of instrument elastic parts (Tochnost' izgotovleniya uprugikh elementov priborov) Moscow, Izd-vo "Mashinostroyeniye," 1966. 175 p. illus., biblio. 6000 copies printed.

TOPIC TAGS: precision instrument industry, spring, measuring instrument

PURPOSE AND COVERAGE: This book is intended for general scientific, engineering, and technical personnel in the instrument-building industry and in other branches of industry dealing with the design and manufacture of elastic elements for precision instruments, mechanisms, and components. Problems concerning precision methods of manufacturing sensors (spring and membrane) for measuring instruments, control systems, and other equipment are discussed. Techniques for stabilizing, compensating, calibrating, and final testing of elastic elements for the proper degree of precision are outlined. General inferences made for helical and flat springs and membranes are also applicable to the manufacture of other types of elastic elements.

Card 1/2 UDC: 681.2-272

ACC NR: AM6029202

TABLE OF CONTENTS [abridged]:

SUB CODE: 13, 14/ SUBM DATE: 02Apr65/ ORIG REF: 025/ OTH REF: 004

Card 2/2

FROLOV, G.P., stroymaster (Stantsiya Pyatigorsk, Severo-Kavkazskoy dorogi)

In the Debri section. Put' i put.khoz. 6 no.2:20 '62. (MIRA 15:2)

(Railroads--Employees)

L 17688-66

ACC NR: AP6006318 SOURCE CODE: UR/0413/66/000/002/0040/0040

INVENTOR: Golovkov, V. M.; Frolov, G. P.

ORG: none

TITLE: Transistorized dynamic flip-flop. Class 21, No. 177930

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 40

TOPIC TAGS: flip flop circuit

ABSTRACT: The dynamic flip-flop shown in Fig. 1 consists of a capacitor serving as a memory element, an input steering section, a feedback path, and an amplifier-pulse

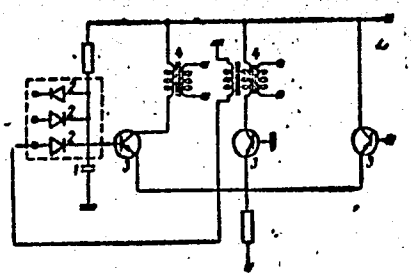


Fig. 1. Dynamic flip-flop

1 - Memory capacitor; 2 - diodes;
3 - transistors; 4 - transformers.

Card 1/2 UDC: 621.374.3

L 17688-66

ACC NR: AP6006318

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shaper. To increase the operating speed and obtain two complementary outputs, the amplifier-shaper consists of three current-switching transistors. The base of the first is linked to the capacitor, the base of the second to a d-c voltage source, and the base of the third to a synch pulse generator. The flip-flop outputs are collector-coupled transformer secondary windings. Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 05Jun63/ ATD PRESS: 4209

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Card 2/2